

AN 134:368377 HCA Full-text  
 TI Oil-based ink for electrostatic ink-jet printing  
 IN Kato, Eiichi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 47 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2001131455	A2	20010515	JP 2000-255846	20000825
PRAI	JP 1999-238824	A	19990825		

AB Title ink-jet ink, with good discharging stability as well as image brightness and strength for multiple printing, is prepared by dispersing in a nonaq. solution having elec. resistivity of  $\geq 10^9 \Omega \cdot \text{cm}$  and permittivity of  $\leq 3.5$ , with particles prepared from a solution containing (A) monofunctional monomers, which are soluble in a nonaq. solvent but the resulted copolymer of which not, (B) amino-containing monofunctional monomers (copolymerizable with A), (C) SO<sub>3</sub> and/or SO<sub>2</sub>H-containing monofunctional monomers (copolymerizable with A), (D) monofunctional macromonomers having main chains composed of specific repeat units with a terminal polymerizable double-bond group at one end, and (E) a star-type copolymer.

IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00

CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 74

ST oil based electrostatic ink jet printing

IT Isoalkanes  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (C7-10, Isopar E; preparation of oil-based ink for electrostatic ink-jet printing)

IT Isoalkanes  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (C9-12, Isopar G; preparation of oil-based ink for electrostatic ink-jet printing)

IT Carbon black, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Microlith Black CT; preparation of oil-based ink for electrostatic ink-jet printing)

IT Paraffin oils  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (Shellsol 71; preparation of oil-based ink for electrostatic ink-jet

printing)

IT Naphthenic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (cobalt salts; preparation of oil-based ink for electrostatic ink-jet printing)

IT Printing (nonimpact)  
 (electrostatic; preparation of oil-based ink for electrostatic ink-jet printing)

IT Inks  
 (jet-printing; preparation of oil-based ink for electrostatic ink-jet printing)

IT Inks  
 (oil-based; preparation of oil-based ink for electrostatic ink-jet printing)

IT Dispersing agents  
 (preparation of oil-based ink for electrostatic ink-jet printing)

IT Polymers, uses  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (star-branched; preparation of oil-based ink for electrostatic ink-jet printing)

IT 150551-83-0 150551-89-6 150551-92-1 150551-93-2 150551-97-6  
 154340-06-4 155293-25-7 159967-38-1 159967-39-2 159967-40-5  
 159967-41-6 159967-42-7 159967-43-8 159967-44-9  
 RL: CAT (Catalyst use); USES (Uses)  
 (initiator; preparation of oil-based ink for electrostatic ink-jet printing)

IT 138005-15-9DP, 4,4'-azobis[4-cyanovaleric acid]-initiated,  
 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester 139104-87-3P  
 139104-90-8P 139105-03-6P 139105-08-1P 139105-12-7P 141414-99-5P  
 141415-72-7P 214835-07-1P 215877-54-6P 215877-61-5P 217076-83-0P  
 333362-05-3P 339334-13-3P 339334-16-6P 339334-20-2P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (macromer; preparation of oil-based ink for electrostatic ink-jet printing)

IT 339275-35-3P, 2-(N,N-Diethylamino)ethyl crotonate-octadecyl methacrylate-4-sulfobutyl crotonate-vinyl acetate graft copolymer  
 339275-36-4P, Dodecyl methacrylate-methyl acrylate-2-(N,N-dimethylamino)ethyl methacrylate-methyl methacrylate-3-sulfopropyl methacrylate graft copolymer 339275-37-5P, Methyl acrylate-2-(N,N-

dimethylamino)ethyl methacrylate-methyl methacrylate-3-sulfopropyl methacrylate-tridecyl methacrylate graft copolymer 339275-38-6P, Hexadecyl methacrylate-methyl acrylate-2-(N,N-dimethylamino)ethyl methacrylate-methyl methacrylate-3-sulfopropyl methacrylate graft copolymer 339275-39-7P, Methyl acrylate-2-(N,N-dimethylamino)ethyl methacrylate-methyl methacrylate-octadecyl acrylate-3-sulfopropyl methacrylate graft copolymer 339275-40-0P 339275-41-1P 339275-43-3P 339275-44-4P 339275-46-6P 339275-47-7P 339275-48-8P 339275-49-9P 339275-50-2P 339275-51-3P 339275-52-4P 339275-53-5P 339275-55-7P 339275-57-9P 339275-59-1P 339275-61-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of oil-based ink for electrostatic ink-jet printing)

IT 2373-23-1 7440-67-7D, Zirconium, dioctylsulfosuccinic acid complex, uses 25719-52-2, Polydodecylmethacrylate

RL: MOA (Modifier or additive use); USES (Uses)

(preparation of oil-based ink for electrostatic ink-jet printing)

IT 107-46-0, Hexamethyldisiloxane

RL: NUU (Other use, unclassified); USES (Uses)

(preparation of oil-based ink for electrostatic ink-jet printing)

IT 2580-56-5, Victoria Blue B 68993-80-6, Alkali Blue

RL: TEM (Technical or engineered material use); USES (Uses)

(preparation of oil-based ink for electrostatic ink-jet printing)

IT 150469-59-3P 159967-35-8P, Dodecyl methacrylate-ethyl acrylate-methyl methacrylate block copolymer 159967-36-9P, Methyl acrylate-methyl methacrylate-stearyl methacrylate block copolymer 159967-46-1P, Hexadecyl methacrylate-vinyl acetate-vinyl propionate block copolymer 159967-47-2P 159967-48-3P 159967-49-4P 159967-50-7P 159967-51-8P 159967-52-9P 159967-53-0P 159967-54-1P 159967-55-2P 216988-37-3P, Dodecyl acrylate-4-methylstyrene-octadecenyl methacrylate-styrene block copolymer 339569-47-0P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(star; preparation of oil-based ink for electrostatic ink-jet printing)

AN 1994-243398 [30] WPINDEX Full-text  
DNN N1994-192020 DNC C1994-111138  
TI Colour toner giving fixed images with high smoothness - including  
binder

resin obtd by **copolymerising** a monomer mixt comprising e.g.  
**octadecyl acrylate**.

DC A89 G08 P84 S06  
PA (KONS) KONICA CORP  
CYC 1  
PI JP 06175394 A 19940624 (199430)\* 12p  
ADT JP 06175394 A JP 1992-351606 19921209  
PRAI JP 1992-351606 19921209  
AN 1994-243398 [30] WPINDEX Full-text  
AB JP 06175394 A UPAB: 19940914

In the toner containing binder resin(s) and colourant(s), the binder resin is prepared by **copolymerising** a monomer mixture comprising 2-40 mol.% of monomer(s) of formula (I) and one or a mixt of **styrene**, **acrylic ester** and methacrylic ester type monomers. The binder resin has a softening pt. (Tsp) of 90-115 deg. C and a glass transition pt. (Tg) of 50-65 deg. C meeting the following conditions. In (I), R1 = H or CH3; and R2 = 8-18C, opt. substd. alkyl or alkenyl.

(I) include octyl, dodecyl, hexadecyl and **octadecyl methacrylate**, octyl, nonyl tetradecyl and octadecyl acrylate, partially halogenated prods. of the (meth)**acrylic esters**, dodecenyl methacrylate and dodecenyl acrylate.

USE/ADVANTAGE - The toner has high strength and hardness, high developing and transferring performance, good cleaning **property** and reduced dependence of charging upon environmental conditions offering stable colour fixed images over a long period. Dwg.1/1